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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PAIK, STEVE S

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 09 25 2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/814,054

Applicant(s)

LEVINE, ALFRED B.

Examiner

Steven S. Paik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 7-21, 23 and 26-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-6, 12, 20-22, 24, 25 and 29-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 22 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of applicant's domestic priority claim under 35 U.S.C. 119(e).

Claim Objections

2. The claims are objected to because the lines are crowded too closely together, making reading and entry of amendments difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).
3. Claim 1 is objected to because of the following informalities: the word, "represtative" in line 5 appears to be --representative --. Furthermore, the examiner respectfully suggests substituting the two commas in line 15 with a comma. Appropriate correction is required.
4. Claim 3 is objected to because of the following informalities: the examiner respectfully suggests substituting the words, "said initially operating means" in line 2 with -- said operating means -- to avoid issue of lacking the antecedent basis. Appropriate correction is required.
5. Claim 6 is objected to because of the following informalities: the examiner respectfully suggests substituting the words, "said initial operating means" in line 2 with -- said operating means -- to avoid issue of lacking the antecedent basis. Appropriate correction is required.
6. Claims 7-21, 23, 26, 27 and 28 are objected to because of the following informalities: If the applicant intends to cancel the aforementioned claims, it is suggested to use word -- cancel -- instead of "withdraw". Those claims have not been examined according to the applicant's request in this Office Action. Appropriate correction is required.
7. Claims 20 and 21 are objected to because of the following informalities: claims 20 and 21 are dependent claims of claim 12, which has been withdrawn from consideration as requested

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by the applicant. If the applicant intends to include the limitations recited in claims 20 and 21, he needs to amend their dependency or changed them to an independent claim. Appropriate correction is required.

8. Claim 29 is objected to because of the following informalities: the extra space between the word, "digital" and "ly" line 8 appears to be superfluous. The examiner respectfully suggests deleting the space. Appropriate correction is required.

9. Claim 32 is objected to because of the following informalities: the word "ebd" in line 3 appears to be -- end --. Appropriate correction is required.

10. Claim 41 is objected to because of the following informalities: the extra spaces in front of a comma and a period in lines 3 and 4 respectively are respectfully suggested to be deleted by the examiner. Appropriate correction is required.

11. Claim 46 is objected to because of the following informalities: a period is needed at the end of the claim. Appropriate correction is required.

12. Claim 48 is objected to because of the following informalities: the examiner suggests deleting the extra space in front of a period in line 3. Appropriate correction is required.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1, 2, 6, 22, 31, 35, 42 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Asano et al. (USP 5,587,911).

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Regarding claims 1 and 46, Asano discloses a navigation system comprising:

in the first phase, operating means for visually guiding a vehicle from a zone area of its present location (present position mark 61 in Fig. 7a) to a zone area (destination mark 62) of a selected destination, said operating means visually displaying (map display panel 60) representations of the two zone areas, with the displacement (determined route 63) between the two zone areas being representative of the distance between the two zone areas, and the angular displacement between the two being representative of the directional heading (upper left portion of Fig. 7a and 7c) for the vehicle to follow to reach the selected destination,

the two displaced zone areas (61 and 62) converging toward each other as the vehicle proceeds toward the selected destination (62), and the tow displayed zone areas (61 and 62) diverging away from each other as the vehicle proceeds away from a correct heading toward its destination (the figures 7a and 7b inherently disclose the two displaced zone areas are converging toward each other as the vehicle proceeds toward the selected destination by staying and following the predetermined route 63), and

in a second phase, the navigation system having means for displaying detailed local information (Figs. 12, 13 and 14) of streets-roads in the zone area of destination, thereby in the first phase, enabling the vehicle to be guided by heading direction between the two zones (61 and 62), and in the second phase enabling the vehicle to be guided directly to a selected destination using localized street-road information (Fig. 14 and col. 8, ll. 1-5).

Regarding claim 2, Asano discloses the navigation system as recited in rejected claim 1 stated above, the addition of means providing audible instructions of directional heading during the first phase (col. 4, ll. 30-37).

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Regarding claim 6, Asano discloses the navigation system as recited in rejected claim 1 stated above, the operating means including means for determining distance (Fig. 7a shows distance) between the location zone of the vehicle (61) and the selected destination zone (62) for the vehicle and enabling the degree of enlargement of the visual presentations of the two zones to be changed as the vehicle nears the destination zone (col. 7, ll. 56-60).

Regarding claim 22, Asano discloses a two phase vehicle navigation system for initially guiding a vehicle by heading directions from one area zone (61) to a destination area zone (2), both within an extended region subdivided into series of area zones (Fig. 4) and wherein upon reaching the destination zone then guiding the vehicle locally within said destination zone to a specific location by communicating additional detailed information about the local destination zone (col. 7, ll. 1-13), the improvement comprising:

distance determining means (col. 6, ll. 66-66 and col. 7, ll. 1-3) for determining the distance between the location of the vehicle (61) and the location of the destination (62, 32 Km in this example),

an on-board navigation receiver (6, 7 or 8) having a display screen (60, 70 or 81), said receiver displaying on the screen the location of the vehicle referenced to the location of the destination (Fig. 7b shows present location), and

means for changing the scale of enlargement of the screen display of vehicle (peripheral map 76 and wide area 82) location referenced to destination location as the vehicle proceeds toward the destination location.

Regarding claims 31, 35 and 42, Asano discloses a vehicle navigation system comprising:

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detector means (present position detector, col. 5, ll. 45-48) within the vehicle for continually determining the location of the vehicle within different distant zones of a city, town, or other geographic area with reference to the end zone (destination in Fig. 4) of selected specific distant destination as the vehicle proceeds toward the end zone of the destination, a visual display energized by the detector means to continually display (present position 70 in Fig. 7b) only the changeable zone location of the vehicle and display the fixed end zone location of the specific destination, and localized navigation means (peripheral map) energizing the visual display (Fig. 7c and 12) when the vehicle reaches the fixed end destination zone, to display the streets, roads and local addresses in the end destination zone to guide the vehicle to the specific destination (Fig. 7b shows present position and the branching point with local addresses).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 3 - 5, 12, 20, 21, 24, 25, 29, 30, 32, 33, 34, 36-40, 43-44 and 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asano (USP 5,587,911) in view of Kubon (USP 5,682,030).

The teachings of Asano have been discussed above. Re claims 3 -5, 12, 20, 21, 24, 25, 29, 30, 32, 33, 34, 36-40, 43-44 and 47-50 , Asano discloses a navigation system including all of

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the features of claimed invention with the exception of a plurality of fixed road signs bearing coded information.

Kubon shows an automobile navigations system (including a code reader camera 1601) and a road sign (1612) bearing a bar code (1613). The particular bar code may be chosen to correspond to the information printed on the road sign (1612), such as mileage distance to the next town, speed limit information, upcoming exit information, gas station and hotel information etc (these may be considered as traffic control information). In another situation, the user may, based on prior information concerning the trip route, program the computer (navigation system) with the user's desired route. If the computer decodes a bar code (1613) from a passing road sign (1612) which should not have been encountered, based upon the programmed route, the computer may notify the user that the user is no longer on course. Alternatively, based upon the bar codes (1613) decoded from the road signs (1612), the computer may give periodic indications to the user as to upcoming exits, turns, etc. (col. 20, ll. 55-62). The bar coded road signs provide exact present location information to the user and check if the user stays on course. Furthermore, since the bar code may include other useful information such as mileage distance to the next town, speed limit information, upcoming exit information, gas station and hotel information to a user, the user can plan his trip with increased efficiency.

Therefore, it would have been obvious at the time the invention was made to a person having of ordinary skill in the art to have combined the automobile navigation system reading a plurality of bar coded road signs, as taught by Kubon with the navigation system of Asano for the purpose of providing additional helpful information such as mileage distance to the next town, speed limit information, upcoming exit information, gas station and hotel information and

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ensuring the users' staying on the predetermined trip route. Such combination provides a user a peace of mind while traveling and assists the user managing time and resources for his trip more efficiently.

17. Claims 41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asano et al. (USP 5,587,911) as modified by Kubon (USP 5,682,030) as applied to claims 38 and 42 above, and further in view of Ohmura et al. (USP 6,208,932).

Regarding claims 41 and 45, Asano as modified by Kubon teaches all of the claimed features of the invention including an audible output and visual display near dashboard. However, they fail to teach a display screen superimposed on a windshield.

Ohmura et al. discloses in figure 1, a head-up display on a windshield outputting an image data related to a driver's driving condition and destination. This is an alternative way of outputting necessary information to the driver based on the driver's preference. If the driver just wants to get information in audible fashion, he or she may disregard the visual display on a windshield.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have utilized the head-up display, as taught by Ohmura, for the purpose of providing an additional option of receiving information from a navigation system since it is obvious matter of design variation, well within the ordinary skill in the art, to optimize available techniques of outputting information to a driver using a navigation system. Moreover, such modification could have been an art recognized functional equivalent in providing an output to a driver using a navigation system, per se.

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Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Van Ryzin (USP 5,844,505) discloses an automobile navigation system using a wide angle CCD camera that is coupled to the vehicle to receive video images of signs being approached by the vehicle.

Tsunoda et al. (USP 4,757,455) disclose a navigation system for a vehicle generating a guide display in the form of a diagrammatic roadmap.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 703-308-6190. The examiner can normally be reached on Mon - Fri (7:00am-3:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6893 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.


Steven S. Paik
Examiner
Art Unit 2876

ssp
September 12, 2002


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